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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

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Mr. William F. Caton  
Office of the Secretary  
Federal Communications Commission  
1919 M Street, N.W., Room 222  
Washington, D. C. 20554

DOCKET FILE COPY ORIGINAL

Re: In the matter of Streamlining the Commission's Rules and Regulations for Satellite  
Application and Licensing Procedures, IB Docket No. 95-117.

Dear Mr Caton:

Enclosed herewith is one (1) original, and 5 (five) copies of our comments submitted to the  
Notice of Proposed Rulemaking in IB Docket 95-117.

Sincerely,

**COMSEARCH**

Christopher R. Hardy  
Director, Microwave and Satellite Services  
Enclosure

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Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

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In the matter of

Streamlining the Commission's )  
Rules and Regulations for Satellite ) IB Docket No. 95-117  
Application and Licensing Procedures )

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To: The Commission

COMMENTS OF COMSEARCH

Comsearch hereby respectfully submits comments on the above-captioned Notice of Proposed Rulemaking ("NPRM") to streamline application and licensing procedures and requirements for satellite space and earth stations under Rule Part 25.

Comsearch has been a provider of frequency engineering and coordination services to the microwave and satellite industry since 1977. In this regard, Comsearch has worked with the FCC and actively participated in industry groups, such as the National Spectrum Managers Association (NSMA) and the Telecommunications Industry Association (TIA) to develop industry recommendations and standards to promote efficient use of the radio spectrum. Our experience in the satellite engineering, application, and licensing process makes us qualified to comment in this proceeding.

COMSEARCH supports the Commission's efforts to streamline the satellite space and earth station application and licensing procedures. On the whole, the items outlined in the NPRM will reduce regulatory constraints and eliminate unnecessary paperwork imposed by the current Part 25 Rules and Regulations. In addition, the technical changes proposed in the NPRM will permit a more uniform frequency coordination approach between neighboring countries. While Comsearch applauds any effort which will result in a more efficient engineering and licensing approach, the integrity of the systems must not be compromised in the process.

#### **A. Space Stations**

##### **5. Eliminating Application Requirements for Inclined Orbit Operations**

We agree with the Commission that earth stations "must update their frequency coordination" when uplinking to a satellite in an inclined orbit.<sup>1</sup> Since the 6 GHz uplink band is shared on a co-primary basis with point-to-point terrestrial microwave services operating under Rule Parts 21 and 94 , updated frequency coordination should be required. As the pointing azimuth and elevation varies with the north-south shift of the inclined orbit satellites, there is a corresponding change in the antenna discrimination creating the potential for increased interference

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<sup>1</sup> See NPRM para. 16.

into shared band facilities. Depending on the geographical location of the earth station and the corresponding inclined orbit satellites, the impact on the calculation of earth station coordination contours could be significant. These modified contours could increase significantly and more important, the interference potential into shared band facilities could also increase.

Comsearch agrees that the Commission should allow earth stations to operate with inclined orbit satellites under the provision that the applicant perform an interference analysis in accordance with the procedures set forth in Part 25.255. Under this Rule Part, the applicant is required to certify, through a Supplemental Showing, that proposed changes to the operation of an earth station have been circulated to licensees of point-to-point facilities in the shared band. The coordination of operational changes is an essential element in the process to promote efficient spectrum utilization and the prevention of undesirable interference.

## **B. Earth Stations**

### **1. License Renewal Term for C-band Transportable**

Comsearch has been providing interference analysis and notification services to the transportable industry for more than 15 years. During that period, the diligent application of the methods defined

in Part 25.277 have reduced the occurrence of interference from satellite earth stations into terrestrial facilities significantly. Comsearch supports the Commission's proposed requirement that C-band transportables notify the Columbia Operations center instead of the local EIC.<sup>2</sup> A central point of contact will only help to simplify the notification process for both transportable operators and frequency coordinators. Since transportable operators typically desire uplink capability in a relatively short period and occasionally within hours of the notification process, we recommend that a facsimile number specified at the Columbia Operations Center be dedicated to C-band transportable operations.

### 3. Eliminating the Requirements for Prior Authorization for Minor Earth Station Modifications

Comsearch supports the elimination of prior authorization requirements for certain "minor" modifications, provided frequency coordination procedures are followed pursuant to Rule Part 25.118. This will reduce regulatory burdens without sacrificing the integrity of systems from incurring potential harmful interference. We note that in the proposed rule section 25.118( C ) different modification criteria are shown for C-band and Ku-band earth stations. We feel that the criteria should be the same for both and should be consistent with shared band facilities. In the terrestrial services, members of the industry have developed minor

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<sup>2</sup> See NPRM para. 18.

modification criteria.<sup>3</sup> Regarding coordinates, the joint commenter's proposed that a minor modification include a change "by five (5) seconds or less of latitude, longitude or both". This proposal struck a balance between the stringent (any change) criteria in Part 94 and the more permissible (ten (10) seconds or less of latitude, longitude or both) criteria found in Part 21. In all cases, frequency coordination and the Commission's subsequent placing of modifications on Public Notice is necessary to ensure interference protection between shared band facilities.

### **C. General Proposals**

#### **2. Interference Analysis in the C, Ka and KU Bands**

We concur with the Commission that an updated database is essential to effectively utilize the Adjacent Satellite Interference Analysis (ASIA) program.<sup>4</sup> The changes in the orbital locations and characteristics of the space stations have changed significantly since 1986. We believe that the ASIA program is the most suitable software available for determining compliance with the two degree spacing requirement. However the program requires significant modification and updating to utilize new information, improve the

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<sup>3</sup> See Joint Reply Comments of the National Spectrum Managers Association, Inc and Fixed Point-To-Point Communications Section, Network Equipment Division of the Telecommunications Industry Association in WT Docket No. 94-148, filed March 16, 1995.

<sup>4</sup> See NPRM at para. 29.

ease of use, and provide a more user friendly output. It would be preferable if the database and software were made available (preferably via the Internet) for use by any applicant who desires to evaluate compliance with the two degrees spacing requirements.

#### 4. Eliminating Rules detailing Appendix 28

As noted in the NPRM, changes are frequently made to Appendix 28 of the ITU Radio Regulations as well as the associated ITU-R recommendations.<sup>5</sup> While we agree with the Commission's proposal to reference Appendix 28 in Section 25.251 of the Rules as a method to avoid confusion over current coordination procedures, additional measures are required. Not only should the current versions of Appendix 28 and related recommendations be made available in the Reference Center, the Commission should provide notification of any newly approved recommendations affecting the coordination section of Part 25. The Commission should also specify which ITU-R recommendations are appropriate. This updated approval list should be available via the Internet in addition to the reference room.

#### **FCC FORM 312**

Item 12 on the existing application form, FCC Form 493, defines the orbital satellite positions to be accessed by a particular earth station. The information is critical in the analysis of an earth

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<sup>5</sup> See NPRM para. 32.

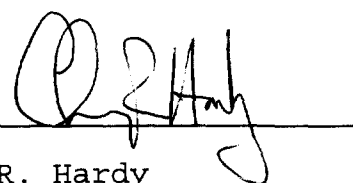
station's viability and the potential impact on shared band terrestrial systems. Unlike the existing form, the proposed form 312, item C6 requires only points of communication which do not accurately define the orbital position of the satellites. Without this data, applicants for shared band terrestrial point-to-point microwave systems would have to consider that every earth station was authorized for the entire satellite arc. This "worst case" analysis would result in inefficient use of the spectrum. We recommend that item C6 include the range of the geostationary satellites to be accessed from a particular earth station.

Respectfully Submitted,

COMSEARCH

Prepared by:

Christopher R. Hardy

A handwritten signature in black ink, appearing to read 'CR Hardy', is written over a horizontal line.

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